



#15  
Don't  
RECEIVED 7-31-03

JUL 16 2003

TECH CENTER 1600/2900

PATENT  
Prior Attorney Docket No. MERCK-2056  
TH&T Attorney Docket No. MRK-001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTORS: Hartmann *et al.* ASSIGNEE: MERCK Patentgesellschaft  
mit Beschränkter Haftung  
SERIAL NO.: 09/708,506 GROUP NO.: 1647  
FILED: November 9, 2000 EXAMINER: DeBerry, Regina M.  
TITLE: ERYTHROPOIETIN FORMS WITH IMPROVED PROPERTIES

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**POWER OF ATTORNEY BY ASSIGNEE OF ENTIRE INTEREST**  
**REVOCATION OF PRIOR POWERS AND NEW POWER OF ATTORNEY**

Sir:

As assignee of record of the entire right, title, and interest in the above-identified patent, all powers of attorney previously given are hereby revoked, and the following attorneys and/or agents are hereby appointed to prosecute and transact all business in the U.S. Patent and Trademark Office connected therewith.

|                         |                 |
|-------------------------|-----------------|
| Andrew F. Abramson      | Reg. No. 52,538 |
| Steven M. Bauer         | Reg. No. 31,481 |
| Mark L. Beloborodov     | Reg. No. 50,773 |
| John V. Bianco          | Reg. No. 36,748 |
| Robert S. Blasi         | Reg. No. 50,389 |
| Michael H. Brodowski    | Reg. No. 41,640 |
| Jennifer A. Camacho     | Reg. No. 43,526 |
| Joseph A. Capraro, Jr.  | Reg. No. 36,471 |
| Fangli Chen             | Reg. No. 51,551 |
| Christopher H. Chung    | Reg. No. 50,351 |
| John J. Cotter          | Reg. No. 38,116 |
| Robert V. Donahoe       | Reg. No. 46,667 |
| Brian A. Fairchild      | Reg. No. 48,645 |
| Jason P. Fiorillo       | Reg. No. 52,892 |
| John V. Forcier         | Reg. No. 42,545 |
| Steven J. Frank         | Reg. No. 33,497 |
| Kia L. Freeman          | Reg. No. 47,577 |
| Christopher J. Frerking | Reg. No. 42,557 |
| Brian M. Gaff           | Reg. No. 44,691 |
| Jennifer E. Grant       | Reg. No. 51,752 |
| Duncan A. Greenhalgh    | Reg. No. 38,678 |
| William R. Haulbrook    | Reg. No. 53,002 |
| Ira Heffan              | Reg. No. 41,059 |
| Douglas J. Kline        | Reg. No. 35,574 |
| John D. Lanza           | Reg. No. 40,060 |
| Leigh J. Martinson      | Reg. No. 50,749 |

|                       |                 |
|-----------------------|-----------------|
| William A. Meunier    | Reg. No. 41,193 |
| Thomas C. Meyers      | Reg. No. 36,989 |
| Ronda P. Moore        | Reg. No. 44,244 |
| Jeremy Occek          | Reg. No. 50,794 |
| Jamie H. Rose         | Reg. No. 45,054 |
| Christopher W. Stamos | Reg. No. 35,370 |
| Diana M. Steel        | Reg. No. 43,153 |
| Robert J. Tosti       | Reg. No. 35,393 |
| Thomas A. Turano      | Reg. No. 35,722 |
| Natasha C. Us         | Reg. No. 44,381 |
| Christine C. Vito     | Reg. No. 39,061 |
| Daniel A. Wilson      | Reg. No. 45,508 |
| Gerald E. Worth       | Reg. No. 45,238 |
| Yin P. Zhang          | Reg. No. 44,372 |
| Stephanie M. Zierten  | Reg. No. 52,397 |

All future correspondence should be sent to:

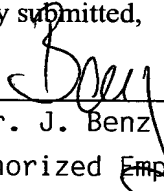
Patent Administrator  
Testa, Hurwitz & Thibault, LLP  
High Street Tower  
125 High Street  
Boston, MA 02110

**PLEASE ASSIGN PTO CUSTOMER NUMBER 021323 TO  
THIS PATENT APPLICATION.**

The assignee of record of the entire right, title, and interest in the above-identified patent is **MERCK Patentgesellschaft mit Beschränkter Haftung**, by virtue of an assignment from the inventors of the above-identified patent application to MERCK Patentgesellschaft mit Beschränkter Haftung submitted for recordation in the U.S. Patent and Trademark Office on June 16, 2003 (copy enclosed).

Respectfully submitted,

Dated: June 30, 2003

  
Name: Dr. J. Benz

Title: Authorized Employee

MERCK Patentgesellschaft  
mit Beschränkter Haftung  
Darmstadt, Germany

(The above-signed, whose title is supplied, is authorized to act on behalf of the assignee.)



# RECORDATION FORM COVER SHEET PATENTS ONLY

PATENT  
**COPY**

TO: Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

## Submission Type

- ☒ New  
☐ Resubmission (Non-Recordation)

Document ID#:

☐ Correction of PTO Error

Reel #:  Frame #:

☐ Corrective Document

Reel #:  Frame #:

## Conveyance Type

- ☒ Assignment ☐ Security Agreement  
☐ License ☐ Change of Name  
☐ Merger ☐ Other

U.S. Government

(For use ONLY by U.S. Government Agencies)

☐ Departmental File ☐ Secret File

## Conveying Party(ies)

☐ Mark if additional names of conveying parties attached

Name  Arno Hartmann

Name  Silke Brandt

Name  Erwin Rieke

Name  Cornelius Sobel

Name  Kin-Ming Lo

Name  Jeffrey C. Way

Name  Stephen Gillies

Execution Date  
Month Day Year

12/20/00

12/20/00

12/20/00

12/20/00

12/20/00

12/20/00

12/20/00

RECEIVED

JUL 16 2003

TECH CENTER 1800/2900

## Receiving Party

☐ Mark if additional names of receiving parties attached

Name (line 1)  MERCK Patentgesellschaft mit Beschränkter Haftung

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)  Darmstadt

City

Germany

State/Country

Zip Code

☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment)

## Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

FOR OFFICE USE ONLY

Mail documents to be recorded with required cover sheet(s) information to:  
Box Assignment, Director of the United States Patent and Trademark Office, Washington, D.C. 20231

## Correspondent Name and Address

Area Code and Telephone Number (617) 248-7000

Name Patent Administrator

Address (line 1) Testa, Hurwitz &amp; Thibault, LLP

Address (line 2) High Street Tower

Address (line 3) 125 High Street

Address (line 4) Boston, MA 02110

Pages Enter the total number of pages of the attached conveyance document including any attachments.

3

## Application Number(s) or Patent Number(s)

☐ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

## Patent Application Number(s)

## Patent Number(s)

09/708,506

## Patent Cooperation Treaty (PCT)

Enter PCT application number  
only if a U.S. Application Number  
has not been assigned.

PCT

PCT

PCT

PCT

PCT

PCT

## Number of Properties

Enter the total number of properties involved.

#

1

## Fee Amount

Fee Amount for Properties Listed (37 CFR 3.41):

\$

40.00

Method of Payment:

Enclosed ☒Deposit Account ☐

Deposit Account

(Enter for payment by deposit account or if additional fees can be charged to the account)

Deposit Account Number

#

20-0531

Authorization to charge additional fees:

Yes ☒No ☐

## Statement and Signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.

Brian A. Fairchild

Reg. No. 48,645

Name of Person Signing

Signature

Date

16 June 2003

## ASSIGNMENT

ATTY. DOCKET NO.:

WHEREAS the below named inventor (if only one inventor is named below) of inventors (if plural inventors are named below) hereinafter referred to as the ASSIGNOR invented a certain improvement relating to

**Erythropoietin Forms with Improved Properties**

- ☐ for which an application for Letters Patent to be filed in the United States Patent and Trademark Office was executed on even date.  
☒ for which U.S. Application Serial No. 09/708,506 for Letters Patent was filed in the U.S. Patent and Trademark Office on November 9, 2000  
☐ for which an International Application was filed on \_\_\_\_\_ as \_\_\_\_\_, designating the United States

AND WHEREAS

**MERCK PATENTGESELLSCHAFT  
MIT BESCHRÄNKTER HAFTUNG  
Darmstadt, Germany**

hereinafter referred to as the ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues, reexaminations and extensions thereof.

NOW, WITNESSETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, ASSIGNOR hereby assigns, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive right, title and interest in and to said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, and in and to any and all priority and/or conventions rights or benefits accruing or to accrue with respect to the filing or securing of patents in the United States and/or any countries foreign thereto, SAID ASSIGNEE its assigns and legal representatives to have, hold, exercise, and enjoy said invention and application, including any and all divisions and continuations thereof, and any and all Letter Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such Letters Patent when granted, including any and all renewals, reissues, reexaminations and extension thereof, for the use and benefit of ASSIGNEE and its assigns and legal representatives, in as simple and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and enjoyed the same, if the assignment had not been made.

AND ASSIGNOR hereby agrees to execute all papers that may be necessary to file applications in the United States and foreign countries for said invention and to assign the same to said ASSIGNEE, its assigns and legal representatives and to execute any other papers that may be needed in connection with filing said applications and securing Letters Patents thereon.

AND ASSIGNOR authorizes and requests the Commissioner of Patents and Trademarks to issue a Letters Patent on said application, and on any and all divisions and continuations thereof, to ASSIGNEE, its assigns, and legal representatives, in accordance herewith.

The undersigned hereby grant(s) the law firm of Millen, White, Zelano & Branigan, P.C. the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN TESTIMONY THEREOF this assignment was executed by ASSIGNOR

|  |                           |                   |
|--|---------------------------|-------------------|
| 201 FULL NAME OF SOLE INVENTOR OF FIRST NAMED INVENTOR | INVENTOR'S SIGNATURE      | DATE              |
| Arno Hartmann  | <i>Arno Hartmann</i>      | December 20, 2000 |
| 202 FULL NAME OF SECOND JOINT INVENTOR                 | INVENTOR'S SIGNATURE      | DATE              |
| Silke Brandt   | <i>Silke Brandt</i>       | December 20, 2000 |
| 203 FULL NAME OF THIRD JOINT INVENTOR                  | INVENTOR'S SIGNATURE      | DATE              |
| Erwin Rieke  | <i>Erwin Rieke</i>        | December 20, 2000 |
| 204 FULL NAME OF FOURTH JOINT INVENTOR                 | INVENTOR'S SIGNATURE      | DATE              |
| Cornelius Sobel  | <i>Cornelius Sobel</i>    | December 20, 2000 |
| 205 FULL NAME OF FIFTH JOINT INVENTOR                  | INVENTOR'S SIGNATURE      | DATE              |
| Kin-Ming Lo  | <i>Kin-Ming Lo</i>        | December 20, 2000 |
| 206 FULL NAME OF SIXTH JOINT INVENTOR                  | INVENTOR'S SIGNATURE      | DATE              |
| Jeffrey C. Way   | <i>Jeffrey C. Way</i>     | December 20, 2000 |
| 207 FULL NAME OF SEVENTH JOINT INVENTOR                | INVENTOR'S SIGNATURE      | DATE              |
| Stephen Gillies  | <i>Stephen D. Gillies</i> | December 20, 2000 |
| 208 FULL NAME OF EIGHTH JOINT INVENTOR                 | INVENTOR'S SIGNATURE      | DATE              |
| 209 FULL NAME OF NINTH JOINT INVENTOR                  | INVENTOR'S SIGNATURE      | DATE              |
| 210 FULL NAME OF TENTH JOINT INVENTOR                  | INVENTOR'S SIGNATURE      | DATE              |
| 211 FULL NAME OF ELEVENTH JOINT INVENTOR               | INVENTOR'S SIGNATURE      | DATE              |
| 212 FULL NAME OF TWELFTH JOINT INVENTOR                | INVENTOR'S SIGNATURE      | DATE              |



# TRANSMITTAL FORM

|                           |                      |
|---------------------------|----------------------|
| Application Serial Number | 09/708,506           |
| Filing Date               | November 9, 2000     |
| First Named Inventor      | Hartmann             |
| Group Art Unit            | 1647                 |
| Examiner Name             | Deberry, Regina M.   |
| Attorney Docket No.       | MERCK-2056 (MRK-001) |
| Patent No.                | Not applicable       |
| Issue Date                | Not applicable       |

RECEIVED

JUL 16 2003

TECH CENTER 1600/2900

## ENCLOSURES (check all that apply)

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Fee Transmittal Form<br><input type="checkbox"/> Check Attached<br><input type="checkbox"/> Copy of Fee Transmittal Form   | <input type="checkbox"/> Copy of Notice to File Missing Parts of Application  | <input type="checkbox"/> Notice of Appeal to Board of Patent Appeals and Interferences  |
| <input type="checkbox"/> Amendment/Response<br><input type="checkbox"/> Preliminary<br><input type="checkbox"/> After Final<br><input type="checkbox"/> Affidavits/declaration(s)<br><input type="checkbox"/> Letter to Official Draftsperson including Drawings [Total Sheets _____] | <input type="checkbox"/> Formal Drawing(s)  | <input type="checkbox"/> Appeal Brief (in triplicate)   |
| <input type="checkbox"/> Petition for Extension of Time   | <input type="checkbox"/> Request For Continued Examination (RCE) Transmittal  | <input type="checkbox"/> Status Inquiry   |
| <input type="checkbox"/> Information Disclosure Statement<br><input type="checkbox"/> Form PTO-1449<br><input type="checkbox"/> Copies of IDS Citations   | <input type="checkbox"/> Power of Attorney (Revocation of Prior Powers)   | <input checked="" type="checkbox"/> Return Receipt Postcard   |
| <input type="checkbox"/> Certified Copy of Priority Document(s)   | <input type="checkbox"/> Terminal Disclaimer  | <input type="checkbox"/> Certificate of First Class Mailing under 37 C.F.R. 1.8   |
| <input type="checkbox"/> Sequence Listing submission<br><input type="checkbox"/> Paper Copy/CD<br><input type="checkbox"/> Computer Readable Copy<br><input type="checkbox"/> Statement verifying identity of above   | <input type="checkbox"/> Executed Declaration and Power of Attorney for Utility or Design Patent Application                        | <input type="checkbox"/> Certificate of Facsimile Transmission under 37 C.F.R. 1.8  |
|   | <input type="checkbox"/> Small Entity Statement   | <input checked="" type="checkbox"/> Additional Enclosure(s) (please identify below)   |
|   | <input type="checkbox"/> CD(s) for large table or computer program  | <ul style="list-style-type: none"><li>• Original Power of Attorney by Assignee of Entire Interest Revocation of Prior Powers and New Power of Attorney (2 pgs.)</li><li>• Copy of Recordation Form Cover Sheet along with copy of assignment (3 pgs.)</li></ul> |
|   | <input type="checkbox"/> Amendment After Allowance  |   |
|   | <input type="checkbox"/> Request for Certificate of Correction<br><input type="checkbox"/> Certificate of Correction (in duplicate) |   |

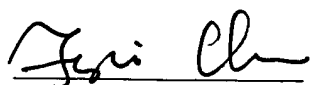
## CORRESPONDENCE ADDRESS

Direct all correspondence to: Patent Administrator  
Testa, Hurwitz & Thibault, LLP  
High Street Tower  
125 High Street  
Boston, MA 02110  
Tel. No.: (617) 248-7000  
Fax No.: (617) 248-7100

## SIGNATURE BLOCK

Date: July 11, 2003  
Reg. No. 51,551  
Tel. No.: (617) 310-8389  
Fax No.: (617) 790-0535

Respectfully submitted,

  
Fangli Chen, Ph.D.  
Agent for Applicant(s)  
Testa, Hurwitz & Thibault, LLP  
High Street Tower  
125 High Street  
Boston, MA 02110